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# International Trends in Disability Program Growth

by Lois S. Copeland\*

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The steep growth in the number of beneficiaries under the U.S. Social Security Disability Insurance program during 1966-77 has aroused interest in learning whether programs abroad experienced similar expansion. This article presents the gross rate of disability incidence in five European programs and explores termination rates (for recovery and death) in three of those programs. Factors underlying growth patterns are also discussed. Findings show that the gross disability incidence rate increased in the Belgian and Finnish programs from the late 1960's and in the programs of the Federal Republic of Germany, the Netherlands, and France from the early 1970's, tapering off in all five countries studied by the mid-1970's. Gross recovery- and death-termination rates declined continuously in the Dutch and the Finnish programs. For all countries in this study, changes in the definition of statutory disability and changes in other program provisions, economic conditions, demographic patterns, and public awareness and attitudes were the major causes of expansion. Adequate explanations to account for the recent slackening off in program growth, however, are lacking.

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For over a decade, the number of workers receiving disability pensions has grown in many Western industrialized countries.<sup>1</sup> Although recent evidence suggests that the growth trends may have mitigated somewhat—and the U.S. program has actually experienced a decrease in the number of disabled-worker beneficiaries since 1978—past expansion in the size of programs has continued to arouse considerable concern and, consequently, sparked keen interest both in the United States and abroad in learning of trends in disability pension program growth and possible factors underlying these patterns that have emerged in other countries. This knowledge can help provide alternative perspectives to national issues and aid in making projections of program growth.

The following article explores how disability pension program growth has manifested itself in several coun-

tries. Has the growth been characterized by a rise in the number of newly awarded pensions without a corresponding growth in the insured population? Are pensioners drawing benefits for longer periods than had typically been the case in the past? Have declines occurred in the number of pension terminations owing to such reasons as death or recovery? In addition, this article analyzes the principal factors contributing to the expansion of the disability pensioner population. Another purpose of this article is to determine what, if any, measures aimed at coping with the recent developments are being taken or discussed in various countries.

Specifically, this article focuses on the increase in pension recipients from 1967 through 1977 in the general earnings-related disability pension programs of five countries: Belgium, the Federal Republic of Germany, Finland, France, and the Netherlands.<sup>2</sup> These particular systems and this time series were selected primarily because of the availability of statistical and other relevant information.

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<sup>1</sup> The term "disability pension" refers in this article to pensions granted on the basis of long-term, non-work-connected disability, or "invalidity" as it is often described in foreign programs.

<sup>2</sup> For a study of trends in growth of the disability pension system in the United States during this period, see Francisco R. Bayo, Stephen C. Goss, and Samuel S. Weissman, **Experience of Disabled-Worker Benefits under OASDI, 1972-76** (Actuarial Study No. 75), Office of the Actuary, Social Security Administration, June 1978.

At this point, a caveat on the dangers inherent in making international comparisons of this kind should be given. Differences in social and economic aims as well as historical developments among countries inevitably account for the array of approaches taken in providing cash disability benefits. Nevertheless, it is still useful to determine what, if any, common developments have taken place among countries during a given time span.

Major program differences found in disability pension systems include variations in the segments of the population covered, eligibility requirements, waiting period requirements, benefit levels, and the upper age limit at which a person no longer qualifies for a disability pension but receives instead an old-age (or retirement) pension.<sup>3</sup> Basic descriptions of the general earnings-related disability programs in the five countries are presented as background to help understand the analysis that follows.

The mix of other forms of income-replacement programs within each country also affects the patterns of growth. For example, stricter eligibility requirements for disability pensions might prompt some persons to claim unemployment benefits or old-age pensions under an early retirement provision rather than to seek a disability pension.<sup>4</sup> It is beyond the scope of this article, however, to provide a description of these other types of income-maintenance programs.<sup>5</sup>

This study is a preliminary one. Much benefit could be gained by a more detailed study differentiating disability pensioners by age groups, sex, major medical impairment, education, occupation, and so forth, and by developing time-series data over a more extended period. Further insights would certainly be provided from correlating such variables as earnings-replacement levels of disability pensions and unemployment rates with disability pension experience.

## Background

Each of the countries in this study has two income-maintenance programs within the framework of its general social security system to protect workers whose capacity to work has been reduced substantially because

<sup>3</sup> Most countries have a cash sickness benefit program that provides income replacement during short-term (generally up to 52 weeks) incapacity for work. In case of continuing work incapacity, the individual would then be transferred to the disability pension program. These benefits remain payable until death, recovery, or attainment of normal retirement age.

<sup>4</sup> See Martin Tracy, *Retirement Age Practices in Ten Industrial Societies, 1960-1976* (Studies and Research Series No. 14), International Social Security Association, Geneva, 1979.

<sup>5</sup> For an outline of these programs, see *Social Security Programs Throughout the World, 1979* (Research Report No. 54), Office of Research and Statistics, Office of Policy, Social Security Administration, May 1980.

of non-employment-connected medical impairments—a cash sickness benefit program and a disability pension program.<sup>6</sup> The two programs are generally based on different legislation and entitlement criteria, including different definitions of work incapacity.

The particular program to which the worker turns in the event of illness or injury depends on the duration of the work incapacity. Cash sickness benefit programs typically provide income replacement for incapacities that are short-term or temporary, generally lasting up to 52 weeks. After that, should the incapacity continue, the worker would be transferred to a longer-range program—namely, the disability pension.

Generally, the question does not arise of when benefits cease but of when one benefit is substituted for another. The transfer, however, may not always be automatic because of differences in conditions of entitlement.

Once the decision has been made to transfer the person to the disability pension program (assuming the individual meets the applicable eligibility requirements), these benefits are payable until death, recovery, or attainment of a specified age. A person is deemed recovered when either the medical condition has improved or the person has returned to work—despite impairments—to the point where the definition of disability is no longer satisfied. The most common cause of disability pension termination is attainment of statutory retirement age. The person's disability benefits are then replaced with an old-age or retirement pension.

Summing up, the usual sequence of social security awards during the course of a non-work-related illness or injury is: First a cash sickness benefit, then a disability pension, then an old-age pension.

Brief highlights of the chief provisions of the general earnings-related disability pension programs in Belgium, the Federal Republic of Germany, Finland, France, and the Netherlands are presented below. The major characteristics outlined are: Coverage (with an indication of population segments specifically excluded from the general system but covered under special programs or funds), qualifying conditions (including insurance requirements and the definition of disability used), the waiting period before which the disability pensions became payable, pension size, and age at which disability pensions are converted to old-age pensions.<sup>7</sup> Data

<sup>6</sup> In Belgium, the Federal Republic of Germany, Finland, and France, a third program—the work-injury benefit scheme—exists to provide cash benefits to workers whose injuries or illnesses are employment-related. In the Netherlands, however, the cash sickness benefit and disability pension programs apply to all incapacities, whether work-connected or not, as a result of a 1966 law that eliminated the distinction between work- and non-work-related disability effective July 1, 1967.

<sup>7</sup> For a fuller discussion of concepts of disability under social security programs, see Lois S. Copeland, *Defining Disability: A Cross-Country Study* (Staff Paper No. 28), Office of Research and Statistics, Social Security Administration, 1977.

contained in each summary are based on laws, implementing decrees, and regulations in force at the beginning of 1977.<sup>8</sup>

## Belgium

**Coverage.** The general system covers all employed persons and apprentices. The self-employed, miners, and seamen are insured under special systems.

**Qualifying conditions. Insurance requirements—**Six months of insurance, including 120 days of actual or credited work and insurance during the last quarter preceding onset of work incapacity, are required. **Definition of disability—**A person must be only able to earn one-third or less of that which a healthy person of similar age and with comparable training could earn in the same or similar occupations, considering the claimant's vocational history.

**Waiting period.** Disability pensions become payable only after the person has been unable to work for 1 year. During that year, the worker is eligible to receive cash sickness benefits.

**Pension size.** A single worker receives a pension amounting to 43.5 percent of earnings revalued for price and wage changes. The minimum benefit is BF 393 a day for women or BF 402 a day for men.<sup>9</sup> A worker with dependents is paid at a rate of 65 percent of revalued earnings. The daily minimum and maximum benefits for both men and women are BF 503 and BF 1,133, respectively. Benefits are adjusted periodically for wage and price changes and other economic factors.

In addition, the disabled worker might also qualify for cash benefits under the Handicapped Person's Act. For example, a constant attendance supplement, ranging from BF 10,638 to BF 21,278 a year (according to need), can be granted. Means-tested allowances can also be provided to needy persons.

**Conversion to old-age pension.** Old-age pensions automatically replace disability pensions at age 65 for men and age 60 for women.

## Federal Republic of Germany

**Coverage.** Wage earners and salaried employees are covered under the general system in separate schemes but with identical provisions. Miners, public employees, the self-employed, and farmers have special systems.

**Qualifying conditions. Insurance requirement—**The person must have contributions totaling a minimum of 60 months. **Definition of disability—**There are two definitions, according to the severity of work incapacity.

<sup>8</sup> Most of the information presented in the country summaries has been taken from *Social Security Programs Throughout the World, 1977* (Research Report No. 50), Office of Research and Statistics, Social Security Administration, 1978.

<sup>9</sup> As of December 31, 1976, one Belgian franc equaled \$0.27.

ity. To meet the definition of occupational incapacity, the worker's earning ability must have been reduced to less than one-half that of a physically and mentally fit person with comparable training and equivalent knowledge and abilities. To satisfy the definition of general disability, the worker must be unable to work either on a regular basis in the foreseeable future or for significant earnings.

**Waiting period.** Disability pensions become payable on a determination that the illness or injury has stabilized to the point at which further medical improvement or successful completion of vocational training is not considered likely. During this period of "healing" or "consolidation," the worker can receive cash sickness benefits for a maximum of 78 weeks within a 3-year period.

**Pension size.** The pension formula varies, according to which definition of disability the worker meets. For a pension based on occupational incapacity, the worker receives 1 percent of his or her average revalued wages for each year of insurance. The general disability formula calls for 1.5 percent of average revalued wages for each year of insurance. A child's supplement equal to 10 percent of the computation basis is payable for each dependent child.<sup>10</sup> Benefits are adjusted annually according to wage changes and other economic factors.

Pensions for those under age 55 are computed as though the worker were insured up to his or her 55th birthday. In order to receive these hypothetical insurance credits, however, the worker must have paid contributions for 36 months in the last 5 years, or for at least half of the months elapsing since becoming insured.

**Conversion to old-age pension.** Disability pensioners aged 62-64 may elect to have their benefits converted to old-age pensions under the flexible retirement age program.<sup>11</sup>

## Finland

**Coverage.** Employees, seasonal workers, farmers, and the self-employed are covered under the general earnings-related program. Special systems provide coverage for maritime workers and public employees.

**Qualifying conditions. Insurance requirement—**The worker must have worked for the same employer for at least 1 month preceding the onset of the illness or in-

<sup>10</sup> The computation basis corresponds to the average of national wage levels in 3 preceding calendar years and is changed each July 1. The July 1977 computation base, resulting from the 1973-75 average, was DM 20,161 (as of December 31, 1976, one Deutsche Mark (DM) equalled \$0.42).

<sup>11</sup> Under the program, an insured person whose capacity for work has been reduced by at least a half may claim an old-age pension up to 3 years early, subject to a very stringent earnings limitation. An old-age pension thus claimed is advantageous since periods of unemployment or training in which no contributions were paid are credited as insurance years and thereby increase the size of the pension.

jury. Special requirements, however, are set for seasonal employees, farmers, and the self-employed. *Definition of disability*—The general earnings-related pension system provides for two degrees of disability, with different pension levels. For total disability, the worker must have lost 60 percent of work capacity; for partial disability, 40 percent. Disability is evaluated in terms of the extent to which the person, considering age, qualifications, and other circumstances, is unable to do former or suitable work that would provide a reasonable livelihood. A further condition is that either the total or the partial disability must be expected to last at least 1 year.

**Waiting period.** The period of disability can begin as early as 1 month following the person's incapacity for work if the pension institution believes the disability is likely to last at least 12 months. The worker can, however, continue to receive cash sickness benefits for up to 300 days based on the same illness or injury before being transferred to the longer-range disability program.

**Pension size.** For total disability, the formula calls for 1.5 percent of the earnings of the 2 most average of the last 4 years of work for each month of coverage, and assumes that the person had worked to age 65. (Fifty percent of work before 1962—the year the program was implemented—is credited.) A worker with a partial disability receives half the full pension. In either case, the pensioner receives a supplement of 20 percent for one child and 40 percent for two or more children.

These formulas relate to the statutory minimums. Employers can voluntarily provide higher benefits. Pensions are adjusted automatically for the arithmetical average of changes in wage and price indexes.

Besides the above benefits, a permanently disabled person who has lived in Finland for 5 years preceding disability can draw benefits under the universal pension system.<sup>12</sup> In this program a single worker is paid a flat-rate benefit of Fmk 153 monthly (Fmk 306 for a couple).<sup>13</sup> Supplements for wife, children, constant attendance, and dwellings can also be added. Means-tested allowances can be granted to low-income pensioners. Benefits under the universal pension system are adjusted automatically each year for changes in the consumer price index.

**Conversion to old-age pension.** At age 65, a disabled worker's benefit is converted to an old-age pension.

## France

**Coverage.** Approximately 70 percent of employees, primarily those in industry and commerce, are covered

<sup>12</sup> The universal program provides for payment of flat-rate cash benefits to all Finnish residents regardless of income, employment, or means. The benefits include old-age, survivors, and disability pensions.

<sup>13</sup> As of December 31, 1976, one Finnish markka (Fmk) equalled \$0.26.

under the general earnings-related disability program. Agricultural workers, miners, railroad workers, public utility employees, seamen, and the self-employed are covered under separate systems.

**Qualifying conditions. Insurance requirement**—The worker must have 12 months of insurance preceding the onset of disability and 800 hours of employment in the last 12 months, including 200 hours in the first 3 of those 12 months. *Definition of disability*—The program provides for three degrees of disability: (1) Total disability—the loss of all earning capacity, (2) total disability requiring constant attendance, and (3) partial disability—inability to earn in any suitable profession more than one-third of the salary earned by a person doing a job similar to that which the disabled person did prior to illness or injury. Evaluation of the degree of disability is based not only on the residual work capacity, health, age, and physical and mental abilities, but also takes account of the person's aptitudes and previous vocational training.

**Waiting period.** The typical practice in France is to pay cash sickness benefits for 1 year. After that, the disability pension begins. In certain cases, however, special consideration is given to illnesses of long duration. In these instances, the person remains in "cash sickness benefit status" for 3 years before being transferred to the disability pension program.

**Pension size.** A person determined to be totally disabled receives 50 percent of average revalued earnings in the highest paid 10 years, with a minimum annual pension of F 4,300 and a maximum of F 21,660.<sup>14</sup> Should the person require constant attendance, an annual supplement of F 21,805 would be added. For partial disability, the pension is 30 percent of average earnings in the highest paid 10 years, with a maximum of F 12,996 a year. Low-income pensioners can receive a disability ("solidarity") allowance equal to F 4,700 a year. Pensions are adjusted twice yearly for changes in national average wages.

**Conversion to old-age pensions.** At age 60, the disability pensioner is shifted automatically to the old-age pension program.

## The Netherlands

**Coverage.** All employed persons are covered under the general earnings-related disability pension scheme.

**Qualifying conditions. Insurance requirement**—Current employment at the onset of disability is sufficient. *Definition of disability*—A person must be either totally or partially unable to earn at the same or a nearby but similar place of employment what a physically and mentally healthy person with similar training normally earns.

<sup>14</sup> As of December 31, 1976, one French franc equalled \$0.20.

Seven categories or degrees of pensionable incapacity (six levels of partial disability, one level of total disability) are recognized. The six degrees of earning incapacity that give rise to the corresponding partial disability pensions are (1) 15–24 percent, (2) 25–34 percent, (3) 35–44 percent, (4) 45–54 percent, (5) 55–64 percent, and (6) 65–79 percent. A worker is considered totally disabled when his or her earnings capacity has been reduced by at least 80 percent.

**Waiting period.** The pension becomes payable after 52 weeks of disability. Cash sickness benefits can be received during the waiting period.

**Cash benefits.** Disabled workers with a minimum of 25 percent earning incapacity receive a basic pension from a general disablement scheme plus a pension from the earnings-related disability scheme.<sup>15</sup>

The general disablement benefit equals 80 percent of a specified base amount (f. 80.63 a day) if the person is totally disabled.<sup>16</sup> A constant attendance supplement—20 percent of the base amount—can also be granted. If the person's disability is in the 25–79 percent range, he or she receives a partial pension equal to 20–65 percent of the base amount, according to a schedule in the law.

The general earnings-related disability pension program provides added earnings-related benefits necessary to bring total benefit compensation up to 80 percent of earnings (below f. 198 a day) for workers with at least an 80 percent loss of earning capacity. A constant attendance allowance of 20 percent of the full pension can also supplement the pension. For partially disabled workers (those with a 15–79 percent earnings loss), earn-

ings-related payments that enable them to receive 10–65 percent of earnings, depending upon the degree of earning incapacity, are furnished. Pensions are adjusted twice a year for changes in the wage index.

## Growth in Disability Pensions

In all of the countries included in this article, the number of persons receiving disability pensions has grown over the period 1966–77. Table 1 indicates the number of disability pensions in force expressed as a percentage of the population insured under the disability programs, including those already receiving disability pensions.<sup>17</sup> As seen from table 1, this growth was dramatic in Finland and the Netherlands, modest in Belgium, and negligible in the Federal Republic of Germany and in France except in the last 2 or 3 years. While the growth shown in table 1 is mainly accounted for by an increase in the number of disability pensions, it should be noted that in the Federal Republic of Germany a large amount of the growth between 1974 and 1977 is attributable to the drop in the number of insured persons. (If the number of insured persons, including pensioners, is held constant at the 1974 level, the number of pensioners as a percentage of the insured population rises from 7.56 to 8.39, rather than from 7.56 to 8.82.)

The total number of disability pensions in force depends on two flows: The flow of new awards and the flow of pension terminations. The behavior of these two flows is examined in the following sections.

<sup>15</sup> The general disablement program pays basic cash benefits to all disabled residents over age 18, including persons disabled since childhood. Under this program, nonemployed wives are covered for rehabilitation and other in-kind benefits. The general earnings-related program is, in effect, a parallel system that provides benefits for employed persons only (excluding the self-employed).

<sup>16</sup> As of December 31, 1976, one guilder (f.) equalled \$0.40.

<sup>17</sup> All tables in this article have been calculated from detailed program data for each country studied (these include estimated number of insured persons, disability pension awards, disability pensions in force, disability pension terminations, and so forth). These tables are available on request from the Comparative Studies Staff. Data sources are summarized in the technical note accompanying this article.

**Table 1.**—Number of disability pensions in force as percent of estimated number of insured persons including disability pensioners

At end of year	Belgium		Federal Republic of Germany		Finland		France		Netherlands	
	Percent	Index (1968 = 100)	Percent	Index (1968 = 100)	Percent	Index (1968 = 100)	Percent	Index (1968 = 100)	Percent	Index (1968 = 100)
1966	3.42	96	.....	.....	<sup>1</sup> 2.04	58	1.94	93	.....	.....
1967	3.53	99	7.30	99	<sup>1</sup> 2.61	74	2.01	97	.....	.....
1968	3.57	100	7.34	100	<sup>1</sup> 3.53	100	2.08	100	4.60	100
1969	3.72	104	7.32	100	<sup>1</sup> 4.17	118	2.09	100	5.77	125
1970	3.73	104	7.26	99	3.49	84	2.07	100	6.28	137
1971	3.86	108	7.40	101	4.40	125	2.03	98	6.80	148
1972	4.00	112	7.52	102	5.60	159	2.00	96	7.36	160
1973	4.14	116	7.57	103	6.82	193	2.04	98	7.96	173
1974	4.28	120	7.56	103	7.95	225	1.98	95	8.53	185
1975	4.37	122	8.10	110	8.52	241	2.06	99	9.29	202
1976	4.56	128	8.30	113	9.19	260	2.17	104	9.90	215
1977	4.70	132	8.82	120	9.89	280	2.35	113	10.80	235

<sup>1</sup> The figure for insured persons excludes farmers and self-employed persons; these categories are included from 1970 onwards.

## Gross Disability Incidence

An increase from one year to the next in the number of newly awarded disability pensions may not in itself be significant if, for example, it should be accompanied by a corresponding expansion in the size of the population insured against disability. This section looks at the experiences of the five countries in this study over the period 1967-77 to see if and where real disability pensioner population growth occurred.

**Concepts.** The analysis here is based on the concept of "gross disability incidence rate" that was developed and used by the Social Security Administration's (SSA) Office of the Actuary to examine growth trends in the U.S. Disability Insurance program.<sup>18</sup>

The gross invalidity incidence rate is as follows: The total number of disabled-worker benefits awarded (for all ages and sexes combined) in a calendar year divided by the estimated number of persons insured against disability at the beginning of the year, including those already receiving disability benefits. By multiplying the resulting fraction by 1,000, the gross incidence rate can be expressed in terms of 1,000 workers insured and thus eligible for disability benefits. (Four of the countries in this study—the Federal Republic of Germany, Finland, France, and the Netherlands—have disability systems that call for the award and payment of partial disability pensions and total disability pensions, depending upon the severity of the work incapacity. In these countries, a total number of awards includes both types of pensions.<sup>19</sup>)

A more precise measure of program growth is the "disability incidence rate," which is the rate at which insured workers become disabled and entitled to—rather than awarded—a disability pension.<sup>20</sup> Entitlement occurs when a person meets all of the qualifying conditions, such as the insurance requirement, the disability definition, the waiting period, and the age requirement. Because of filing delays, processing time lags, and so forth, the date of pension entitlement may not necessarily coincide with the date of pension award.

Data available for the countries in this article, however, do not distinguish between entitlement and award. Consequently, even though the disability incidence rate is a more accurate measure, it could not be computed.

<sup>18</sup> Their methodology has been explained and used in several reports, the most recent being the following: Bruce D. Schobel, **Experiences of Disabled-Worker Benefits under OASDI, 1974-78** (Actuarial Study No. 81), Social Security Administration, April 1980.

<sup>19</sup> Since partial pension awards comprise a relatively small percentage of all disability pension awards in all countries but France (where it was about 30 percent by the close of 1976), partial and total pensions are considered together in the sections treating gross invalidity incidence and termination rates. Partial disability pension trends are discussed in a later section of this article.

<sup>20</sup> For a more complete discussion of the disability incidence rate, see Robert J. Myers, **Disability Incidence Rates under OASDI System for Disability Onsets Occurring in 1956-61** (Actuarial Note No. 18), Social Security Administration, April 1965.

Therefore, this article uses the concept of gross disability incidence rate.

**Patterns of change.** Table 2 sets out gross disability incidence rates for 1967-77 under the general earnings-related disability program in the five countries under study. A wide range in the absolute levels of gross disability incidence among the five programs is apparent from the table. For example, the 1975 gross disability incidence rate ranged from 19.89 for the Netherlands to 3.21 for France.

As regards the trends in the gross disability incidence rate, table 2 shows very substantial rises in Finland and the Netherlands, but with the Finnish rate peaking in 1973 and from 1975 showing a marked downturn. The rate in Belgium rose slightly, also peaking in 1973 and falling thereafter. In the Federal Republic of Germany and France, the rates fell during the first half of the period studied but started to rise slightly in 1974 and 1973, respectively. In the case of the Federal Republic of Germany the rise was shortlived, the figure for the final year of the period being the lowest for the decade.

The Belgian, Finnish, and Dutch schemes have experienced growth in their gross disability incidence rates from 1967 (1971 in the case of the Dutch program) to the first half of the 1970's. The rate rose most dramatically in the Finnish program, increasing about 86 percent from 1967 to 1973. In the Dutch and Belgian programs, the gross disability incidence rates climbed slowly but steadily. For the Dutch scheme, the 1969 rate—the first available data—was initially high, perhaps because the present program was introduced in July 1967. The rate marched continuously upwards, however, from the end of 1970 through 1975, increasing about 31 percent during this period. In Belgium, the gross disability incidence rate moved upward a bit slower than was the case in the Netherlands—increasing about 25 percent from 1967 to 1973.

**Table 2.**—Gross disability incidence rates, by year of award, five countries, 1967-77

Year	Rate (per 1,000 insured)				
	Belgium	Federal Republic of Germany	Finland	France	Netherlands
1967 . . . .	9.56	13.59	12.50	3.68	(1)
1968 . . . .	11.63	13.36	16.00	3.63	(1)
1969 . . . .	(2)	13.17	15.69	3.60	16.62
1970 . . . .	(2)	13.11	19.62	3.35	14.88
1971 . . . .	11.72	13.13	18.40	3.03	15.16
1972 . . . .	11.34	12.92	20.69	2.90	15.47
1973 . . . .	12.25	11.97	23.30	3.14	16.10
1974 . . . .	(2)	12.76	22.65	3.16	16.94
1975 . . . .	10.98	13.18	16.94	3.21	19.89
1976 . . . .	10.37	12.52	16.30	3.43	18.67
1977 . . . .	10.79	12.14	16.02	3.84	19.42

<sup>1</sup> Program effective July 1967. Data has been distorted by the transition from the old to new legislation, so it is not included.

<sup>2</sup> Data that are comparable to other years in the series are not available because of changes in methods of administrative recordkeeping.

In contrast, the schemes of the Federal Republic of Germany and France experienced a decline in the rate at which insured workers were awarded disability pensions from the late 1960's to the very early 1970's. In the Federal Republic of Germany, the gross disability incidence rate declined 12 percent during 1967-73. It began its upward direction with 1974 and peaked the following year, increasing just over 10 percent.

A more marked decrease was apparent in the French program in which the rate fell by 21 percent during the 5-year period ending 1972. After that, however, the rate in the French scheme inched its way steadily upward, increasing nearly one-third by 1977.

After this period of rising gross disability incidence rates, the trends in all the schemes with the exception of the French began to mitigate somewhat. The drop occurred the earliest in Finland in 1974 where the rate decreased slightly but fell more rapidly by the close of the following year. In Belgium, the rate tapered off after 1973. In the Federal Republic of Germany and the Netherlands, the slackening-off in program growth became visible by the end of 1976. A slight upswing has been noted, however, in the rates registered for 1977 in the Dutch and the Belgian programs.

### Disability Pension Terminations

Growth in a disability pensioner population is as much related to the stream of workers into the program as to the flow of pensioners out of the program. On the one hand, the number of pensioners can increase as a result of a rise in the number of awards without concurrent growth in the insured population. On the other hand, expansion can be attributable to a decline in the number of recipients who leave, or terminate, because they no longer meet the program's qualifying conditions.

The following events commonly give rise to pension termination: The person (1) fails without good cause to cooperate with the pension institution (for example, he or she refuses to participate in a rehabilitation program or to undergo requested medical examinations), (2) recovers from the disability, (3) reaches the age at which an old-age pension may be claimed, or (4) dies. A person is considered recovered when either (1) the health condition has improved to the extent that the person is able to work, regardless of whether or not the individual is working or (2) despite the actual health condition, the person has satisfactorily demonstrated an ability to work by actually returning to work, generally for a specified time.

From an actuarial standpoint, only two of four termination events—death and recovery—are considered important. Although attainment of pensionable old age commonly accounts for the bulk of terminations, it is not significant actuarially, since it represents simply an

accounting shift from the disability to the old-age pension program. Pensions terminated for other reasons, such as failure to cooperate, occur on such an infrequent basis as to be of very limited importance.

This section traces movements in the number of pensions terminated on account of death or recovery during 1967 through 1977 in three countries—the Federal Republic of Germany, Finland, and the Netherlands.<sup>21</sup> The objective is to determine if declines in death or recovery rates have played a role in contributing to program expansion.

**Concepts.** The SSA's Office of the Actuary has defined and used the concept of gross termination rate to measure changes over the years in the rate at which beneficiaries leave the U.S. Disability Insurance program.<sup>22</sup> This definition—the ratio of the number of terminations in a year to the average number of benefits in force in the year—can be applied to data of other countries.

Specifically, the gross termination rate is defined in this article as the number of terminations of disability pensions (partial and total for all ages and sexes combined) divided by the average number of all disability pensions in force during the year. That fraction is then multiplied by 1,000 to express the rate in terms of 1,000 workers receiving disability pensions and thus subject to possible pension termination.

**Patterns of Change.** Gross death-termination rates as well as gross recovery-termination rates are presented in

<sup>21</sup> Sufficient termination data for the Belgian system for the years before 1974 are not available. With regard to French data, termination statistics for 1974-77 are not comparable with earlier data. Hence, the Belgian and French experience in terminations cannot be considered in this article.

<sup>22</sup> For the pioneer study in this area, see Francisco Bayo, **Termination Experience of Disabled-Worker Benefits under OASDI, 1957-63** (Actuarial Study No. 65), Office of the Actuary, Social Security Administration, March 1969; also see Bruce D. Schobel, **Experience of Disabled-Worker Benefits under OASDI, 1974-78**, *op. cit.*

**Table 3.**—Gross death- and recovery-termination rates for disabled-worker beneficiaries, three countries, 1967-77

Year	Gross termination rate (per 1,000 beneficiaries)					
	Federal Republic of Germany		Finland		Netherlands	
	Death	Recovery	Death	Recovery	Death	Recovery
1967.....	50.0	14.5	(1)	(1)	(1)	(1)
1968.....	51.7	14.2	81.2	33.6	(1)	(1)
1969.....	51.4	14.1	67.5	34.8	38.4	33.6
1970.....	51.9	13.1	61.2	22.4	32.9	28.6
1971.....	46.0	10.9	56.7	21.9	32.9	26.8
1972.....	47.5	10.3	49.1	18.3	30.6	26.0
1973.....	47.3	11.3	39.6	17.6	33.0	24.3
1974.....	43.9	12.4	39.1	17.1	29.5	21.7
1975.....	44.7	12.1	29.8	13.7	32.6	21.0
1976.....	45.9	12.5	26.9	12.0	(1)	(1)
1977.....	41.5	12.7	31.6	11.8	(1)	(1)

<sup>1</sup> Insufficient data available.

table 3 for 1967 through 1977 based on the general earnings-related program experiences in the Federal Republic of Germany, Finland, and the Netherlands.

In the Dutch and Finnish programs, both the gross death- and recovery-termination rates have shown a steady decline. It is especially significant to note that these decreases have occurred in programs that had, in fact, experienced very rapid rises in the gross disability incidence rate. The combined effect of these two movements—an increased flow of insured workers into the program coupled with a decreased flow of beneficiaries out of the program—has resulted in a swelled disability pensioner population.

During 1968 through 1977, the gross death- and recovery-termination rates plummeted dramatically in the Finnish program—death, from 81.2 to 31.6; recovery, from 33.6 to 11.8. The Dutch program also experienced a continuous but much milder downturn in gross death- and recovery-termination rates. Over the years 1969 through 1975, the rate dipped from 38.4 to 32.6 (death), and from 33.6 to 21.0 (recovery).

A different pattern was found in the program of the Federal Republic of Germany. The gross death-termination rate increased slightly from 1967 through 1970—from 50.0 to 51.9. From 1971 through the end of the period under review (1977), however, the rate slipped downward from 46.0 to 41.5. The rise that began in 1973 in the gross recovery-termination rate had actually interrupted a period of decline. The rate was 14.5 in 1967, slid down to 10.3 in 1972, but climbed to 12.7 in 1977. Despite this recent rise, the 1977 rate is below the rate registered at the beginning of this time series.

## Explaining Growth Trends

Prompted by increased concern over the escalated growth that has taken place in their respective countries over the past decade or so, program experts have focused much attention on identifying major factors responsible for such expansion. They have pointed to a variety of interacting factors that have contributed to rapid disability program expansion: (1) Liberalization in the disability definition, (2) changes in other program features, (3) changes in economic conditions, (4) unfavorable demographic developments, (5) changes in public awareness and attitudes, and (6) declining mortality rates. It is likely that these factors have not only acted as incentives for workers to claim a disability pension, but they have also discouraged pensioners from leaving the pension rolls.

## Broader Definition of Disability

One factor thought important in disability pension program expansion in the Federal Republic of Germany, Finland, and the Netherlands has been a broader

interpretation of the statutory definition of disability to take into consideration social and economic factors affecting the disabled workers' opportunities for employment. In each of these countries, the liberalization appeared to come in response to the unfavorable economic conditions of the late 1960's and the mid-1970's that greatly increased unemployment, affecting particularly the ability of the disabled to find and retain suitable employment.

An unemployed disabled worker, especially an older person, often fell between three income-maintenance programs—a disability pension, an unemployment benefit, and a retirement pension—and, therefore, did not qualify for any. First, the pensioner did not qualify for a disability pension because there existed a job that could be considered as suitable, taking into account the nature of the worker's medical impairments, age, and vocational backgrounds; it was not of consequence that the job may not have actually been available. Next, the unemployed disabled person could have either exhausted unemployment benefits or else not be eligible for them because of declining health. Finally, the individual was possibly too young to qualify for an old-age pension.

In the Federal Republic of Germany, the impetus to give greater consideration to actual job availability in determining not only the existence of disability but also its severity (occupational versus general) stemmed largely from deterioration in labor-market conditions.<sup>23</sup> The Federal Social Court issued two rulings—one in 1969, the other in 1976—that have led to a liberalization in the disability definition. These rulings require pension institutions to place increasingly more emphasis on considering whether a suitable job exists in the economy in adequate numbers before reaching an unfavorable disability determination.

As a consequence, the Federal Republic of Germany's pension institutions—after several failures at placing the disabled in a suitable job—might have assumed a greater earning capacity reduction than actually corresponded to the worker's remaining capacity. Effectively, this leniency is thought to have led to awarding either a total pension for general disability when a partial pension for occupational incapacity would have been more appropriate, or a partial pension when denial might have been more proper.<sup>24</sup>

In Finland, 1973 legislation provided for easing the statutory disability definition so that the person's overall social situation could be taken into account. It is believed that this relaxation might have resulted in the

<sup>23</sup> Further efforts to aid older workers were incorporated into the flexible retirement age provisions introduced in 1973. See Gisela C. Wang, "Flexible Retirement Feature of German Pension Reform," *Social Security Bulletin*, July 1973, pages 36-41.

<sup>24</sup> Eckhard Nicolay, "Die Entwicklung der Rentenzugabe 1972 bis 1977," *Die Angestelltenversicherung*, Berlin, April 1978 and May 1978.

pension institution—especially in light of the prevailing decreased employment possibilities—paying too much attention to the applicant's own opinions of the severity of his or her health condition.<sup>25</sup>

The Netherlands, too, broadened the definition of disability in response to prevailing labor-market conditions: Beginning in January 1973, the degree of work incapacity is to be fixed only after taking into account what chances the disabled worker actually has to obtain or be placed in suitable employment. Thus, a partially disabled worker (one with at least a 15-percent loss of working capacity) could be entitled to a total disability benefit (which had required a loss of at least 80 percent of earning capacity) if either the disabling impairment prevented employment, or no suitable employment possibility existed near where the person lived. Consequently, many awards apparently were granted for total disability even in cases where disabled workers might have been only partially incapacitated for work but no suitable job was available.

The broadening of the disability definition to consider economic and social factors as well as medical factors has thus led to a diminished importance being attached to the role of partial disability pension awards. In the Federal Republic of Germany, Finland, and the Netherlands, most awards have been granted on the basis of total disability.

Table 4 traces what percentage of all disability pensions awarded each year were granted on the basis of partial disability. Of this series, partial disability pensions represented less than 15 percent of all disability pensions awarded. For the Dutch system, in particular, this low percentage stands out markedly since a minimum of a 15-percent earning-capacity loss would be suf-

ficient to entitle a disabled worker to a partial disability pension.

In addition to the legislative or judicial broadening of the definition of disability, problems in the practical assessment of disability have also led to an expansion in the definition. For example, in the Netherlands the sharp rise from 1969 to 1974 in the number of pensions awarded on the basis of mental impairments (11.5 percent to 17.5 percent) and locomotory impairments, including lower back pain (23.7 percent to 27.2 percent) is indicative of these assessment difficulties. Both types of impairments are often not easy to diagnose through objective medical procedures; consequently, the worker's subjective feelings are frequently considered in the assessment.<sup>26</sup>

In Finland and in the Netherlands, concern has been expressed that doctors may be insufficiently trained to diagnose work incapacity for purposes of social security disability entitlement.<sup>27</sup> The doctors' tasks may be further complicated because cases are not referred to them promptly enough to prevent the disability or to render it less severe.

## Other Program Provision Changes

Besides broadening the statutory definition of disability, other significant reforms in disability pension programs have been implemented over the past two decades. Such legislative changes in Belgium, Finland, and the Netherlands have led generally to an increase in the insured population, a relaxation of the eligibility requirements, and improvements in disability benefits.

In view of the wide scope of the legislative changes, the pension programs in these countries had naturally been expected to experience some growth. The marked extent to which the expansion has taken place, however, cannot be attributed solely to the legislative revisions, but must also be ascribed to other tendencies discussed in this section. The major revisions that have occurred in Belgium, Finland, and the Netherlands are briefly described below.

**Belgium.** The Belgian program was recast in 1963, with the major innovations being (1) the separation of medical care benefits from cash benefits such as cash sickness benefits, disability pensions, and funeral grants and (2) the substantial financial contribution of the Government towards the cost of disability pensions, with the percentage of its contribution determined on

<sup>25</sup> Jaako Suominen, "Ability to Work/Inability to Work" (in Finnish), *Invalidihuolto*, No. 1, Helsinki, 1978.

**Table 4.**—Partial disability pension awards as a percentage of all pension awards, three countries, 1967–77

Year	Federal Republic of Germany	Finland	Netherlands <sup>1</sup>
1967 . . . .	33.1	(2)	(3)
1968 . . . .	32.6	(2)	21.0
1969 . . . .	30.8	(2)	22.3
1970 . . . .	26.7	(2)	21.2
1971 . . . .	19.0	(2)	20.8
1972 . . . .	16.2	(2)	18.0
1973 . . . .	16.1	8.4	12.3
1974 . . . .	14.5	11.4	12.9
1975 . . . .	12.4	11.6	13.1
1976 . . . .	11.8	10.6	(4)
1977 . . . .	13.0	13.2	(4)

<sup>1</sup> Data pertains to decisions issued by the Joint Medical Service. Consequently, year of pension awards may not necessarily correspond to the year in which the disability decision was issued.

<sup>2</sup> Program effective January 1, 1973.

<sup>3</sup> Program effective July 1, 1967. Comparable data not available for 1967.

<sup>4</sup> Data not available.

<sup>26</sup> *Social and Cultural Report, 1976*, Social and Cultural Planning Office, The Hague, the Netherlands, 1977.

<sup>27</sup> "Editorial," *Sosiaalivakuutus*, Helsinki, No. 9–10, 1976; and Hans Emanuel, "Factors in the Growth of the Number of Disability Beneficiaries in the Netherlands," *International Social Security Review* (No. 1), International Social Security Association, Geneva, 1980.

the basis of the duration of the disability. From the late 1960's through the mid-1970's, the number of the insured population grew because of the extension of coverage to temporary workers and domestic workers; modifications were made in the share of the Government's financial contribution; and an improvement occurred in the formula used to compute disability benefits.

**Finland.** The employment-related disability pension program was first put into force in July 1962. A number of modifications were introduced during the next decade. For example, benefit amounts were increased, stemming from two benefit formula revisions in the late 1960's, and coverage was expanded to self-employed persons and farmers in 1970. The insured status requirements were eased from 6 months to 4 months and then reduced to the present (since July 1971) 1 month. Additionally, provisions for partial disability pensions were implemented in 1973.

**Netherlands.** The Netherlands merged its work-related and non-work-related disability programs for employed workers into a single program effective July 1967. Among the major features of the reform were provisions for seven types of disability pensions depending upon the severity of the work incapacity and the granting of full disability insurance rights as of the first day of employment.

## Changes in Economic Conditions

**Technological developments.** For the worker, developments in technology and production may require great flexibility and may often cause anxiety about the uncertainties of the future. Mental stress, possibly attributable to these changes, is believed by experts to be among the factors responsible for the growth in pension awards in Belgium, Finland, and the Netherlands.

Technological changes may bring about a reduction in the number of workers required to do a particular task. As a result, employers, especially in declining industries, need to discharge excess workers. Once discharged, less able-bodied workers may encounter the reluctance—for diverse reasons—of employers to hire them. Their difficulties in finding employment intensify during periods of rising unemployment such as those during the late 1960's and in the mid-1970's. Problems in finding suitable alternative work may act as an incentive for these technologically displaced workers to claim disability pensions.

In the Netherlands, for example, many workers already "selected-out," or those threatened with the possibility, are thought to be discharged via the disability pension program for the following reasons.<sup>28</sup> Because of the broadening of the disability definition to take

into account prevailing labor-market conditions, many workers may be more willing to claim a total disability pension. That pension tends to be higher than the unemployment benefit and is thus more attractive financially. Also, the worker's feeling that being "ill" is more socially accepted than being "unemployed" is felt to exert a positive influence on the decision to file for a disability pension. On the employer's side, discharge via the disability program, instead of the unemployment benefit program, not only tends to be much simpler (such a discharge bypasses the stringent dismissal procedures called for by labor legislation), but also might be seen as being more "humane."

**Changes in labor-market structure.** Greater gaps between demand for and supply of labor have arisen in recent years. To a large extent, these problems are connected with rapid technological and organizational developments as well as deteriorations in employment levels triggered by the late 1960's and the mid-1970's economic slumps.

As a result of diminished employment opportunities, some persons may have taken jobs for which they were ill-suited: they might have been trained for a different position or have too much or too little training. Others might not have been able to find any jobs at all.

Experts in the Netherlands believe that these individuals may be more vulnerable and, consequently, might tend to make more than the average number of demands on the cash sickness and disability pension programs.<sup>29</sup> In Belgium and Finland, too, beliefs are shared by many that the unfavorable economic conditions have made it more difficult for displaced persons, particularly those in their forties and fifties, to reenter the labor-market.<sup>30</sup> This situation may account for some of the increase in disability pension awards.

**Declines in economic sectors.** A declining economic sector may influence the disability pension program in the following way: Persons forced to switch to another economic sector may often lack the vocational and educational backgrounds necessary to make smooth transitions. These persons generally tend to be older and less willing or able to relocate. All these factors might make it difficult for them to find and retain suitable employment. Furthermore, having to cope with a new occupation may be likely to provoke anxiety. In the event they should become less able bodied, they would be more inclined to stop working and claim a disability pension.

In Belgium, for example, there has been a decline in the number of persons engaged in self-employment,

<sup>29</sup> *Ibid.*

<sup>30</sup> Institut national d'assurance maladie-invalidité, *Statistiques médicales: service de l'invalidité*, 12.31.74, Brussels, 1975; and Hans Berglind, "Pension or Work? A Growing Dilemma in the Nordic Welfare States," *Acta Sociologica*, vol. 21, Special Supplement, Oslo, 1978.

<sup>28</sup> *Social and Cultural Report, 1976*, op. cit.

particularly in small-scale commerce. Many of these persons may experience great difficulty in securing suitable jobs in a different economic sector because of their advanced age, previous training, and reduced employment opportunities. They may be obliged to take a job not especially to their liking. As a result, such persons are felt to be more exposed to the risk of disability.<sup>31</sup>

The decline in the agricultural sector in Finland can be taken as another example. Disability pension awards have increased rapidly in recent years and have become more frequent in rural than in urban areas. The number of persons actively engaged in agriculture has shrunk, with many of those who have had to abandon their farms reaching retirement age. These older individuals tend to be less mobile—geographically and occupationally—than younger persons. Should they become disabled, they have much less chance to find alternative employment in rural areas because other less physically demanding work typically requires more education and training, and unemployment levels are much higher in rural than in urban areas. Consequently, the likelihood that these persons would file a disability claim and meet the statutory definition of invalidity and other qualifying conditions tends to increase.<sup>32</sup>

### Unfavorable Demographic Patterns

The percentage of older persons in European populations has been increasing at a quicker pace than the U.S. population. The chief reason for the difference is Europe's abnormal population structure. The toll of World Wars I and II coupled with the economic hardships experienced during the depression of 1929 produced a series of smaller age groups. At the same time, a large pre-World War I generation began to enter the age 50–65 bracket by the mid-1960's.

The trend toward the aging of European populations is expected to peak some time in the early or late 1980's. As the incidence of disability is, of course, much higher among older workers, part of the growth in disability pension programs may be attributed to the aging of the workforce.<sup>33</sup> Incidence rates standardized for age would exclude this purely demographic influence, but unfortunately such data were not available at the time this article was written.

What may make this particular situation even more acute is that segments of the working population are

made up of many persons who began to do more or less heavy physical work as early as age 15. By the time these persons have reached their fifties, they have often been working for nearly half a century; many are simply exhausted, both physically and mentally. Also included in the working population are persons who, at an early age, lived through the difficult years of the Depression and World War II. Hardships experienced as young persons may make it more difficult for them to function adequately at work as they get older.<sup>34</sup>

### Changes in Public Awareness and Attitudes

The expansion in disability programs may also be attributable to a recent greater awareness and acceptance by the public of their entitlement to such benefits. For example, in Finland the Central Pension Security Institute conducted opinion surveys in 1964 and 1967 to determine not only the extent of, but changes in, the public's knowledge of the newly implemented employment-related pension programs.

Responses to the surveys indicated that in 1964 over 20 percent of the public was not familiar with the new programs; however, by 1967 the figure had dropped to 2 percent. Furthermore, the surveys revealed that the programs' provisions were much better understood in 1967 than had been the case in 1964.<sup>35</sup>

### Declining Mortality Rates

Improved medical techniques are among the factors that have lowered the mortality rates in the general population. Similar factors might also explain why gross death-termination rates have been tapering off in the countries studied.

Some medical conditions that were once considered acute are now chronic. For the pension program, these improvements mean that workers who were awarded disability pensions based on certain medical conditions might now receive these benefits over a longer period than others had in the past.

What is interesting, however, is that in the Federal Republic of Germany, Finland, and the Netherlands gross death-termination rates for disabled workers have declined at a much brisker pace than death rates observed in the general population. The following tabulation compares the decline, by percent, of gross death

<sup>31</sup> Institut national d'assurance maladie-invalidité, **Rapport général: rapport statistique (third part)**, Brussels, 1974.

<sup>32</sup> Pekka Siren, **Die allgemein Zuge der Invalidenpensionsentwicklung in Finnland in den Jahren, 1950–1974**, Volkspensionsanstalt Institut für Soziale Sicherheit, Helsinki, May 17, 1976.

<sup>33</sup> For a discussion of the unfavorable repercussions of an aging population on the social security old-age pension schemes, see Max Horlick, "Impact of an Aging Population on Social Security: The Foreign Experience," **Social Security in a Changing World**, Office of Research and Statistics, Social Security Administration, 1979.

<sup>34</sup> Emanuel, "Factors in the Growth of the Number of Disability Beneficiaries in the Netherlands," *op. cit.*

<sup>35</sup> **The Public and the Employment Pension Act: Opinion Study of the Central Pension Security Institute** (in Finnish), the Central Pension Security Institute, Helsinki, 1968, as abstracted in "Social Security Abstracts," No. 132, International Social Security Association, Geneva, 1969.

rates for disabled workers with that for the general population:

Country	Disabled workers	General population
Federal Republic of Germany, 1967-76. . .	19.7	3.4
Finland, 1968-76. . . . .	61.1	3.1
Netherlands, 1969-75 . .	15.1	4.8

The steep rate at which these rates for disabled workers have fallen compared with those for the general population suggest that the other factors discussed in this section have a more significant role in explaining why pensioners have tended to leave the benefit rolls at a slower pace in recent years.

### Coping with Disability Pension Growth

Recognition of the problem of growth in the size of the disability pensioner population appears to have come at a later point in the growth cycle in the European programs studied than in the U.S. program. Slowness in identifying the dimensions of the problem inevitably has accounted for the delay in taking steps to stabilize the program from the point of view of benefit outlays.

To date, program administrators abroad have approached the growth problem primarily from the financing side. That is, they sought additional revenues necessary to meet the rise in benefit expenditures. The obvious response centered, therefore, on raising contribution rates or the contribution ceiling or both.

Although recent evidence suggests that the growth may have tapered off during the last few years, planners abroad are still concentrating much attention on trying to find ways to check or stabilize disability program growth in the future. Such methods are felt to be especially crucial in light of the rising levels of unemployment currently being experienced in Europe and the knowledge of the role that adverse economic conditions played during the previous period of rapid program growth.

On the benefit side, although no specific measures have as yet been implemented, the proposals below are indicative of the thinking on this problem and continue to generate serious discussions in Europe:

- Providing for prompter diagnosis of medical impairments with a view toward instituting rehabilitation procedures at an earlier date;
- eliminating prevailing labor market consideration from the disability assessment criteria during the first few years of work incapacity;
- improving disability evaluation training provided to physicians involved in making social security disability determinations;

- implementing stricter medical control procedures once a pension is awarded;
- introducing fixed-term disability pension awards as a way of avoiding the stigma felt to be associated with being labeled “permanently disabled;” and
- introducing flexible old-age pension features so that older workers whose employment difficulties are related more to unfavorable economic conditions than to a specific medical impairment would be able to claim an old-age pension.

Many planners have also cited the need for additional research in this field. Some experts point to the need for survey studies to be conducted among occupational groups in which disability determinations have proved to be especially difficult to formulate or disability incidence has been high compared with that observed in other groups. Others indicate the necessity of further research into early rehabilitation and work incapacity assessment techniques. Further studies of ways to improve the quality of working life, and thus reduce the occurrence of disability, have also been suggested.

### Data Sources

The data for this study were obtained chiefly through official publications of the national social security institutions that administer the general earnings-related invalidity pension schemes in Belgium, Finland, the Federal Republic of Germany, France, and the Netherlands. In addition, the author would like to thank the following institutions and their staffs who furnished unpublished statistical data and verified the comparability of time-series data used in this article:

- Institut national d'assurance maladie-invalidité, Belgium;
- Central Pension Security Institute, Finland;
- Division des études économiques et statistiques, Direction de la sécurité sociale, Ministère de la Santé et de la Famille, France;
- Service médical de l'assurance maladie des travailleurs salariés, Caisse nationale de l'assurance maladie des travailleurs salariés, France; and
- Gemeenschappelijke Medische Dienst, Netherlands.

The most significant publications used in arriving at the gross invalidity incidence and termination rates in this article are given below.

Federal Republic of Germany: **Statistisches Jahrbuch für die Bundesrepublik Deutschland**, various years, Statistisches Bundesamt, Stuttgart; **Rentenbestand der Rentenversicherung der Arbeiter und Angestellten**, various years, Verband Deutscher Rentenversicherungsträger,

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**Table M-25.**—Supplemental security income for the aged, blind, and disabled: Number of persons, total, and average State payment amount to persons under State-administered State supplementation programs, by reason for eligibility, 1974-81<sup>1</sup>

Period	Number of persons				Total amount (in thousands)				Average payment			
	Total <sup>2</sup>	Aged	Blind	Disabled	Total <sup>2</sup>	Aged	Blind	Disabled	Total <sup>2</sup>	Aged	Blind	Disabled
January 1974	358,293	251,926	8,502	96,926	\$14,884	\$9,237	\$517	\$5,102	\$41.54	\$36.66	\$60.86	\$52.64
December 1974	300,724	193,057	5,898	101,769	11,354	6,824	330	4,200	<sup>3</sup> 37.75	<sup>3</sup> 35.35	<sup>3</sup> 55.95	<sup>3</sup> 41.27
December 1975	303,391	184,679	4,933	113,504	13,803	7,225	301	6,273	45.59	39.12	61.13	55.26
December 1976	274,377	160,360	4,731	109,248	13,720	6,882	327	6,511	50.00	42.91	69.04	59.60
December 1977	264,222	151,131	4,376	108,403	14,202	7,026	332	6,832	53.75	46.49	75.89	63.02
December 1978	259,162	146,854	4,188	107,524	15,577	7,885	363	7,279	60.11	53.69	86.63	67.70
December 1979	257,289	140,894	3,937	105,830	18,327	9,540	361	8,305	71.23	67.71	91.60	78.47
December 1980	249,514	134,648	3,633	104,330	19,855	10,441	352	8,927	79.57	77.54	96.92	85.57
1980												
April	253,517	138,449	3,840	104,264	18,432	9,763	354	8,188	72.70	70.51	92.21	78.53
May	253,905	138,414	3,814	104,729	18,361	9,613	351	8,272	72.32	69.45	92.07	78.99
June	252,682	137,460	3,825	104,518	18,222	9,444	354	8,299	72.12	68.70	92.45	79.40
July	249,129	135,083	3,713	103,509	18,235	9,216	345	8,541	73.21	68.22	93.04	82.52
August	248,252	134,488	3,703	103,242	18,505	9,337	346	8,693	74.54	69.41	93.37	84.20
September	247,248	133,747	3,674	103,095	18,566	9,395	346	8,694	75.09	70.25	94.15	84.33
October	248,028	133,992	3,659	103,617	18,718	9,453	360	8,776	75.47	70.55	98.37	84.70
November	248,328	133,980	3,635	103,914	19,395	10,064	352	8,855	78.10	75.12	96.95	85.21
December	249,514	134,648	3,633	104,330	19,855	10,441	352	8,927	79.57	77.54	96.92	85.57
1981												
January	249,813	135,772	3,626	104,982	19,977	10,486	350	9,021	79.97	77.23	96.44	85.93
February	251,167	135,306	3,620	105,276	20,062	10,518	353	9,054	79.87	77.74	97.41	86.00
March	251,360	135,898	3,593	105,157	20,036	10,531	348	9,020	79.71	77.49	96.84	85.78
April	251,678	136,046	3,574	105,588	19,649	10,095	345	9,076	78.07	74.20	96.45	85.95

<sup>1</sup> Data reported to the Social Security Administration by individual States. All data subject to revision. Excludes optional supplementation data for North Dakota, for Maryland in December 1974 and 1975, and for New Mexico in De-

ember 1976.

<sup>2</sup> Includes data for some States not distributed by reason for eligibility.

<sup>3</sup> Excludes data for South Carolina.

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Frankfurt; and **Arbeits- und sozialstatistik der Bundesminister für Arbeit und Sozialordnung**, Bundesminister für Arbeit und Sozialordnung, Bonn, 1978.

Finland: **Statistical Yearbook of Finland**, various reports, Central Statistical Office of Finland, Helsinki; and **Tilastotietoja työeläkkeen saajista vuodelta**, various reports, Central Pension Security Institute, Helsinki.

France: **Statistiques de l'année**, various years, Caisse nationale d'assurance-maladie, Paris; **Annuaire statistique de la France**, various years, Institut National de la

Statistique et des Etudes Economiques, Paris; **Résultats de l'assurance invalidité**, various years, Ministère de la Santé et de la Famille, Direction de la Sécurité Sociale, Paris; and "Pensions d'invalidité: entrées en invalidité et sorties de l'assurance au cours de l'année", various years, **Bulletin de statistiques: santé, sécurité sociale**, Ministère d'Etat chargé des Affaires sociales et Ministère de la Santé publique, Paris.

Netherlands: **Arbeidsongeschiktheidsfonds**, annual report, various years, Arbeidsongeschiktheidsfonds, The Hague; and **Gemeenschappelijke Medische Dienst** (annual reports, various years), Gemeenschappelijke Medische Dienst, The Hague.